

The university leaves no stone unturned when it comes to emergency preparedness

Former U of A English professor looks back at his old department's rise to prominence

Vivian Wulff recognized for job well done at the U of A and in her spare time

U of A surgeon honoured for work in war-torn Afghanistan

Quinn Phillips

Most surgeons don't have to deal with the blistering sound of F-16 fighter jets taking off while they're in the operating room.

But the University of Alberta's Stewart Hamilton can now say he had that experience every day for more than a month. The professor of surgery served as a surgeon at the Canadian-led hospital at Kandahar Airfield in the summer of 2008. Just last month, he was presented with the General Service Medal from the Canadian military for his work in Afghanistan.

"It's always nice to be recognized but my contribution was small," said Hamilton, whose son, Chris, a master corporal, was serving in Afghanistan at the same time and pinned the medal on his father at the ceremony. "When I hear my son talk about what he did and had to go through... I'm not a hero or anything, just a serviceman."

Stewart's patients would probably beg to differ. The mission for the hospital was to look after the coalition forces first and foremost, as well as Afghan security forces and any civilians injured in the conflict. Hospital staff also provided services to others who needed it, such as Afghan civilians hurt in car accidents, for instance, who were often left at the base's gate.

"We did make some good saves. Some of the stuff we had was amazing surgery," said Hamilton. "I've got X-rays of people with screws and bolts in their chest because they were near a suicide bomber. It was a crazy situation."

Despite everything he saw and had to deal with, he felt safe, "naively maybe," inside the walls of the Canadian camp in Kandahar. "They fired a few rockets at the camp when I was there," recalls Hamilton, who says even that experience didn't faze him. "You put on your vest and your helmet and go to a bomb shelter for an hour while you wait for the all-clear siren."

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Creating a flap



The maple leaf flies from a crane at the Edmonton Clinic on the evening before Canada Day.

Michael Hony | Creative Services

Centre to focus on clean energy and mineral processing

Richard Cairney

A new \$21-million teaching and research centre at the University of Alberta's Faculty of Engineering will educate the next generation of clean-energy engineers and develop new technologies to process minerals, produce clean coal and reduce greenhouse gas emissions.

The Canadian Centre for Clean Coal/Carbon and Mineral Processing Technologies, known as C5MPT, will focus on sustainable development of energy and minerals.

"Our vision is to become a world-class research centre and innovation hub in clean coal/carbon and mineral processing technologies," said David Lynch, dean of the Faculty of Engineering. "By providing the basic research

foundation, we can promote the development and upgrading of Alberta's natural resources in an environmentally responsible manner.

"The centre will educate a new generation of clean-energy engineers who thrive in interdisciplinary research environments and who are capable of integrating knowledge across disciplines, working in teams, understanding industrial needs and addressing problems from an engineering systems perspective," Lynch added.

"Building a strong, sustainable and environmentally responsible energy sector is part of our government's goal to have the most innovative and competitive economy in the world," said Doug Horner, deputy premier and minister of advanced education and technology.

C5MPT will be led by Qingxia (Chad) Liu, a respected academic who holds an MBA, and two PhDs in mineral processing and mining, and metal and materials engineering. Liu has a strong background in the private sector and holds eight patents on commercial applications.

With leading-edge equipment, facilities and internationally respected researchers, C5MPT will focus on three areas of research: clean coal technology, mineral processing technology and carbon capture and storage technology. Liu says the centre is designed to ensure new scientific breakthroughs are brought to market, through an

open innovation operating model in which research findings are shared with industry and research colleagues.

"We will connect basic research and discovery to applied knowledge. We will share information with our partners and speed new technology to the marketplace," said Liu.

Support for the research centre, which includes several named research chairs and professorships, comes from the Government of Alberta through Alberta Innovates-Energy and Environment Solutions and industry partners Capital Power Corporation, Teck Resources Limited, Hatch, Nexen and Foundation CMG. ■

"By providing the basic research foundation we can promote the development and upgrading of Alberta's natural resources in an environmentally responsible manner."

David Lynch

GPS research named best in show

Brian Murphy

University of Alberta researchers Evelyn Merrill and Mark Boyce are featured prominently in a special edition of an international science journal's review of the best and future uses of GPS technology for studying animals.

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folio

Volume 47 Issue 21

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folio's mandate is to serve as a credible news source for the university community by communicating accurate and timely information about issues, programs, people and events and by serving as a forum for discussion and debate. folio is published 23 times per year.

The editor reserves the right to limit, select, edit and position submitted copy and advertisements. Views expressed in folio do not necessarily reflect university policy. folio contents may be printed with acknowledgement.

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ISSN 0015-5764 Copyright 2010



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Life of plastic solar cells jumps from hours to months

Brian Murphy

A team of researchers from the University of Alberta and the National Institute for Nanotechnology has extended the operating life of an unsealed plastic solar cell from mere hours to eight months.

U of A chemistry researcher David Rider says plastic solar-cell technology is a very competitive field and the accomplishment by the U of A-NINT team is quite an achievement.

"Inexpensive, lightweight plastic solar-cell products, like a blanket or sheet that can be rolled up, will change the solar energy industry," said Rider.

The research team initially hit a wall trying to increase the operating life of their plastic solar-cell design. Rider says one of the problems involved electrodes, a key piece of the circuitry required for the efficient extraction of electricity from the solar cell.

"A typical electrode priming coating is known to be unstable and can migrate through the circuitry, potentially limiting the performance of our cell to about 10 hours," said Rider.

So the researchers came up with a new polymer coating that outlasted their original by more than 5,000 per cent. When Rider and team submit-



David Rider shows off an unsealed solar cell.

ted their findings to a science journal, the new plastic solar cell had clocked 500 hours of high-capacity performance.

And Rider says that the solar cell might still be working at high capacity today, had it not been for damage caused during return shipping from additional testing in Ottawa.

"Seven months after we handed

in the research on the 500-hour breakthrough, the solar cell was still working," said Rider.

The research of Rider and his colleagues Jillian Buriak and Michael J. Brett was published last month in *Advanced Functional Materials*.

Rider says that, despite his team's success and advances made by research groups around the world,

there's a lot of work to be done before plastic solar-cell kits are available at home-improvement stores across Canada.

"We have to increase their efficiency while maintaining a long-performance life," said Rider. "Getting eight months of high-capacity performance out of our design is moving in the right direction." ■

Scientists feast on premier's food award

Andrea Hill

On July 6, a University of Alberta research team became one of the first recipients of the Premier's Alberta Food for Health Award.

Feral Temelli and Thava Vasanathan, both of the Department of Agricultural, Food and Nutritional Science were honoured for their work on beta-glucan, a soluble dietary fibre with multiple human health benefits found primarily in barley and oats. Despite its potential to deliver health benefits, conventional methods of concentrating beta-glucan degrade the molecule and make its positive human physiological effects less pronounced.

"If you just rely on barley and oats, you will have to eat four bowls of oatmeal every day to be able to get the three grams of recommended beta-glucan to see these health benefits," Temelli said. "Obviously, that's not a practical approach."

"Beta-glucan increases the viscosity of digesta in the intestinal tract and plays an important role in regulating blood glucose levels and cholesterol reduction, thus reducing the risk of heart disease, the number 1 killer in North America," Vasanathan said. "It also binds with water, increasing feelings of satiety and making the consumer feel full longer; therefore,

it is being promoted as a method of weight management in a world where prevalence of obesity is on the rise."

Although traditional technologies extract beta-glucan from cell walls of grain endosperm, Temelli and Vasanathan's technology minimizes degradation of the molecule by leaving it in the cell wall and selectively removing other cell components, such as starch and proteins. The end product is Viscofiber, which is a beta-glucan concentrate currently used in various supplements and is being tested as an ingredient in a number of food items.

To date, five patents have been filed internationally to protect the intellectual properties attributed to the technology, product and its applications. The French ingredient company Naturex currently owns the license to the patents and is manufacturing and marketing Viscofiber. In addition to the patents, Temelli and Vasanathan have published in a number of reputable journals and participated in collaborative research studies, both locally and nationally, establishing the qualities of Viscofiber in relation to its chemical, functional and nutritional properties.

Temelli said she hopes consumers will soon be able to get the quantities of beta-glucan they need through a variety of products at a competitive price. ■

"If you just rely on barley and oats, you will have to eat four bowls of oatmeal every day to be able to get the three grams of recommended beta-glucan to see health benefits."

Feral Temelli

GPS animal research project

continued from page 1

Merrill and Boyce, both U of A biologists, have been involved with GPS, or global positioning system, technology for more than 10 years. "We witnessed big developments in the technology, and we can use this location and movement information in new and better ways," said Merrill.

With the latest technology, researchers can monitor a GPS-collared animal's movements and behaviour anywhere in the world at any time. GPS signals are uplinked to a satellite and beamed back to a researcher's laptop computer.

"We've used the data to show some amazing changes in animal behaviour," said Boyce.

One of their landmark GPS research projects involved grizzly bears located near human and agricultural development in southwestern Alberta. Boyce says GPS monitoring shows the animals adapted to avoid conflicts with machinery and farmers.

"The bears came out at 11 at night and slept during the day," said Boyce. "GPS readings show the bears made a major adjustment to their lives to accommodate the daily rhythms of the farmers."

Meanwhile the same technology

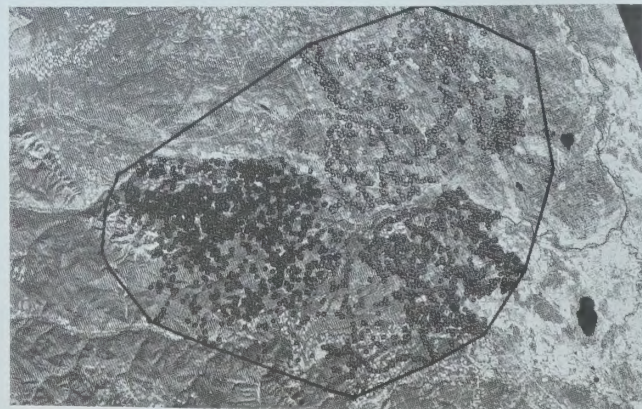
shows the exact opposite is happening with bears in northwestern Alberta, says Boyce.

"We found in forested areas with sparse human development the bears continue with their age-old routine of daytime hunting and nighttime sleeping."

"GPS-based research is used for the long-term benefit of both animals and humans," said Merrill. By understanding the movements of animals in relation to human activity, researchers like Merrill and Boyce say they hope to find ways that, in a shrinking wilderness, animals and development can coexist.

Boyce and Merrill's research is included with the work of others in a special edition of *Philosophical Transactions of the Royal Society*. It is the world's oldest science journal, dating back to 1665.

Merrill says biologists will still have to go out into the wilderness for many aspects of their work, but the scope of GPS and satellite technology is pointing the way. "The reach of GPS directs us where to go. It has eliminated hours and hours of tracking and puts us right where we need to be to figure out an animal's behaviour." ■



GPS map of a collared bear near Jasper.

U of A conference examines China's impact

Michael Davies-Venn

China is experiencing exponential growth, which is making it increasingly difficult to get clarity on the country's economic issues, experts say.

Those muddy waters cleared a bit last week after the University of Alberta played host to leading researchers from Europe, Asia and Australia, who were on campus for China 2020, a conference put on by the U of A's China Institute. The aim of the meeting was to discuss and analyze China's possible paths of development and growing

influence in the coming decade.

Gordon Houlden, director of the U of A's China Institute, says it is impossible to know in advance the course of China over the next decade, but developments in that country are certain to influence Canada in important ways.

"It is in our own interest to better understand China," Houlden said. "In the past, when people have tried to predict the future of China, the results have not been good. For example, during the Cultural Revolution, predictions by writers on where China would be on the global stage were way

off the mark. The conference provided an opportunity that will help us better understand developments in China and their global implications."

The conference outcome also furthered activities of the Contemporary China Centre, an international research group with a focus on China. The centre is within the Worldwide Universities Network, of which the U of A is a part, formed to foster global collaboration through research and education between students and faculty and to find solutions to pressing global issues.

Flemming Christiansen, chair in

Chinese studies at the University of Leeds in the United Kingdom, agrees that the conference was vital to improving the Contemporary China Centre.

"This conference brought together the strands that we have built up at the centre during the last six years," Christiansen said. "The decisions we made are central to developing a more robust organization that creates results through collaboration among researchers and post-graduate training—they will also enhance communications between researchers on China."

Houlden says Alberta is also an ideal place for Chinese investments, particu-

larly in energy, because the province has a reputation of stability not common to other major petroleum producers.

"If you look at global distribution of petroleum, almost exclusively, countries that are involved are unstable. The only area where there is potential for large growth in petroleum is Alberta and Canada is economically stable," he said. "If I were a Chinese and a net-energy importer, I would want diversity and stability of supply."

"So, if you have tens of billions of dollars free for investment in energy, you want to put a chunk of that into Alberta where the risks are low." ■

NSERC discovery grant awarded for algorithm game play

Ileiren Poon

University of Alberta researcher Martin Müller is creating a computer program that can beat a human at the ancient strategy board game Go, but it's not all fun and games.

"I see computer-games research as kind of a test area to better develop problem-solving algorithms," says

Müller. "It's a very easy way to evaluate the strength of your programs. And, in games, we like to make stronger programs, because it's proof that the technology works."

In August 2009, the U of A chalked up another victory in the ongoing battle of human versus computer when Fuego, Müller's team's Go program, managed to stand up against Chou Chun-Hsun, a top-ranked

professional player. On July 20, Fuego will once again test its strength against Chou and three other players.

"If you run the algorithms for the game of Go longer, they play better," said Müller.

Müller, with the Department of Computing Science, is one of six U of A researchers to receive discovery grants

through the 2010 Discovery Accelerator Supplements Program from the Natural Sciences and Engineering Research Council of Canada. The researchers will each receive \$120,000 over three years. This program provides substantial, timely support to outstanding researchers who show strong potential to become international leaders. The awards are allocated to researchers who have received funding through the NSERC annual grants competition.

"These recipients were selected through a rigorous peer-reviewed process and are being provided additional support so that they can maximize the results of their breakthrough," said Suzanne Fortier, president of NSERC. "We congratulate all of these recipients for their outstanding research and creativity."

Müller received funding for his work in search and simulation in games and planning. One of the issues his team is looking at is how to solve

complex computational problems using multiple parallel computer cores.

"The main question is how you divide the work," said Müller. "You have to do things in a certain order, and early results determine what you do next, but that makes it hard to run in parallel."

Faster computation means developing the ability to solve ever-more complex problems.

"Even in games, we don't see an end in sight to the complexity of the computations that will be necessary," he said. "We're looking at automatic planning and search algorithms, very general problem-solving computer programs. The program you write should be able to solve any planning problem you input."

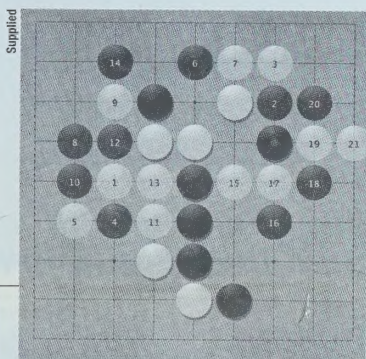
For example, inputting traffic patterns at an airport should create solutions for the movement of airplanes on the ground, or entering conditions and schedules of the Mars Rover should help the vehicle make decisions about

when to take pictures and collect soil samples and when to find a sunny spot to recharge solar cells.

The Discovery Accelerator Supplements Program provides recipients with additional financial resources to compete with the best researchers in the world. Resources may be used to expand the recipient's research group (i.e., students, post-doctoral fellows, technicians), to purchase or have access to specialized equipment or for other resources that would accelerate the progress of their research program.

For Müller, the money means manpower, an extra set of hands to free him up for more research. "If someone reports a bug, someone's got to fix it; and right now, that's usually me," he said.

Other U of A recipients include Mark Freeman, Ivan Mizera, Bruce Sutherland—Intrusions and the life cycle of internal waves, Jonathan Veinot and Andrew Waskiewicz. ■



The Fuego program calculates the best possible move on a Go board.

Surgeon honoured

continued from page 1

Being in Afghanistan was an experience of a lifetime though for Hamilton and one of the biggest things he takes away from the experience is pride. Hamilton says it is amazing to see the high regard for Canadian troops held by coalition forces.

"The thing that amazed me was how many non-Canadian troops came to ramp ceremonies for a Canadian soldier," said Hamilton.

And he has nothing but nice things to say about the medical professionals he worked with.

"It was a really great group; we were very tight." ■

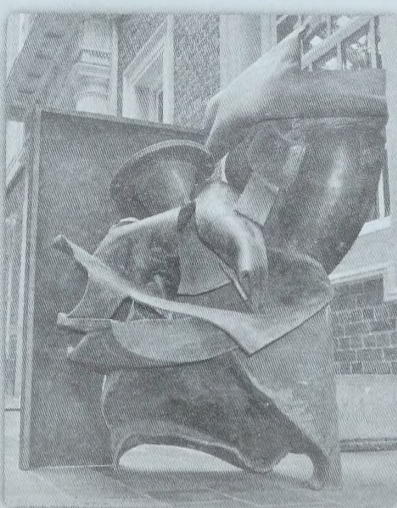


Stewart Hamilton's son, Chris, presents his father with a General Service Medal from the Canadian military.

Are You a Winner?

As there were no correct entries for folio's June 18 "Are You a Winner?" contest, we are going to extend the contest for another issue, but with a sweetened pot of course.

Up for grabs is a copy of "Taking the Lead: Strategies and Solutions from Female Coaches," edited by Sheila Robertson with a forward from Dru Marshall, U of A provost and vice-president (academic), as well as a copy of former U of A English professor Stephen Scobie's latest work, "The Measure of Paris." Both books are courtesy of The U of A Press. To get your hands on your next month's worth of reading, simply identify where on campus the object of the picture is located. Email your correct answer to folio@exr.ualberta.ca by noon on Friday, Aug. 5, and you will be entered into the draw.



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Patient Testimonials:

1) "Near half our staffs have been in your clinic"—A staff of U of A Medicine department.

2) "You helped me lost 35 lbs. & my blood pressure reduced from 180/110 to 125/85. My 20 yrs neck & shoulder pain was gone."—A senior staff of U of A.

3) "I had sever sciatic pain from spinal stenosis, disc bulges & spinal cyst which are not operable. In 2 months, Dr. He has liberated me from most of the pain!"—A senior staff of U of A

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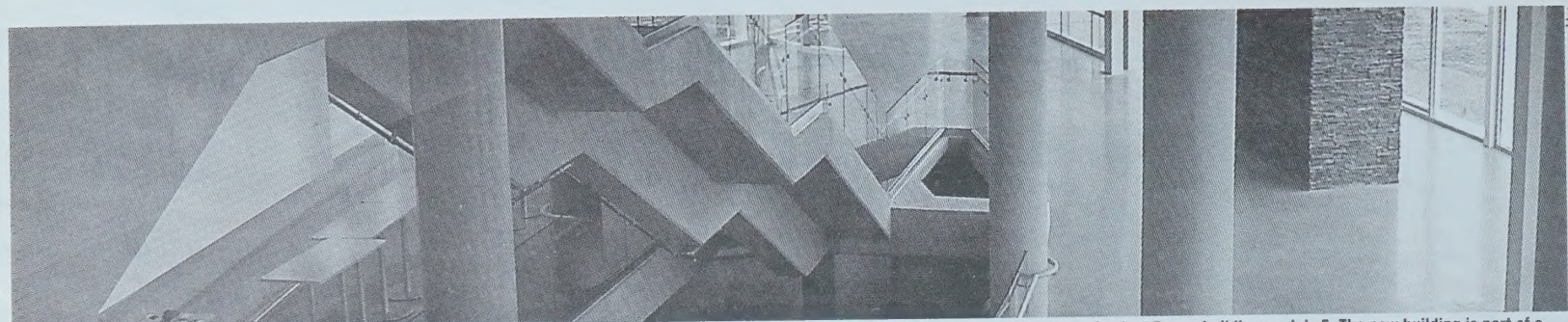
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After decades of preparation and over three years of construction, Augustana Campus faculty and staff started moving into the brand new, \$30-million Student Forum building on July 5. The new building is part of a long-range plan to improve and expand facilities to accommodate more students.

University is at the ready in case of emergency

Michael Brown

Every member of the university community has a role to play during a campus emergency. However, disseminating the particulars of a crisis and providing timely communications and instructions in the midst of a campus emergency starts with the University of Alberta's crisis management team.

Over the past several years, the Office of Emergency Management within Risk Management Services has been working to develop an integrated emergency master plan, using a command-and-control structure that is now the worldwide standard in terms of how institutions

respond to major emergencies and how they should be structured organizationally.

"It is the same system all of the U of A's partners use, including Alberta Health Services, the City of Camrose and the City of Edmonton," said Philip Stack, associate vice-president of Risk Management Services. "Having the same emergency response infrastructure allows institutions to work co-operatively with a full understanding of how each organization would be responding to the incident."

Under the command-and-control structure, Stack says that the crisis management team is divided into two sections; one sets the priorities for re-

sponding to an incident while the other takes the necessary actions to meet those objectives.

"It's flexible in the sense that you can either scale this system up or scale it down depending on the size of the incident," he said.

Stack says the U of A's heightened security measures come in the wake of high-profile incidents such as the shooting at Virginia Tech and even further back to events at Columbine and 9-11.

"There are expectations from parents, from students and from the general public that, with a large public-sector organization like this, we can demonstrate that we have the capacity and we are prepared to respond the best we can to a major emergency," he said.

Stack explains most campus emergencies, such as floods or some spills, can be dealt with by normal operating procedures carried out by university staff.

However, if the emergency escalates beyond something that can be contained by normal operating procedures, the crisis management team turns to the integrated emergency master plan to de-

termine which one of the three levels the emergency falls under, and then follows the accompanying protocol.

"It starts with level 1, which means the emergency goes beyond our capacity to respond solely with our own resources," said Stack. "This may require some external service or entity and may require some media attention."

From there, a list of conditions needs to be met to escalate the severity, up to a level-3 emergency, which means there is loss of life or high levels of structural damage to university infrastructure that impacts the ability of the institution to carry on its normal business in a timely manner.

"Our number-one priority is the health and safety of our university community and the surrounding public. We are doing this, to the extent we can, to protect the health and safety of our students, our staff, our visitors and the surrounding community," said Stack.

On April 13, a level 2 emergency was declared on campus, and the emergency notification system, U of A Alerts, was enacted. It uses building alarms, the U of

A website, as well as emergency messages by email and phone to notify the university community.

"We were very pleased with the response of our crisis-management team; it came together quickly and we were able to manage the situation effectively," said Stack. "The fact that we were able to manage that incident in a timely manner, respond effectively, communicate effectively, inform our key stakeholders of what we were doing and get back to business in a short time frame, means we responded successfully to that incident."

Stack says although there was some feedback from individuals saying that they weren't personally notified and that a friend had to tell them, he would argue word-of-mouth is part of the process.

"At the end of the day, the most important thing is did you get a message about something happening and did you know what to do," said Stack. "Everybody has the responsibility to be prepared."

To view a PowerPoint on emergency readiness, go to www.ualberta.ca/~uaemerg/Emergency/Aware.htm.

“There are expectations from parents, from students and from the general public that we can demonstrate that we have the capacity and we are prepared to respond the best we can to a major emergency.”

Philip Stack

University of Alberta

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Levels of emergency activation

There are three levels of emergency in the university's activation matrix, from Level 1 (least serious) to Level 3 (most serious). The level can be upgraded or downgraded as the situation progresses.

Level 1: one or more of these conditions are met:

- The emergency incident requires a call-out of the university's first responders.
- City emergency response departments may be required.
- The emergency conditions are localized.
- There is, or there may be the potential for some immediate danger to develop.
- There may be potential for some off-campus impact.
- Media response may be building.

If these conditions are met, Campus Security Services declares a Level 1 Emergency. The Emergency Operations Centre is on standby in the event the incident is upgraded. An incident advisory is issued as needed.

Level 2: one or more of these conditions are met:

- City emergency response services are required for an extended period with multiple resources at the incident
- Event is likely to extend for days or weeks.
- There is a public health emergency having, or with the potential for, serious impacts on the university community.
- The incident conditions are severe and have caused injuries, property damage and/or environmental harm.
- There is impact beyond the campus.
- Media attention is highly likely.

- There is interruption of critical services impacting teaching and/or research.
- Partial or full evacuation of the campus is required.
- Potential for political involvement.

If these conditions are met, Campus Security Services, in consultation with the Crisis Leader, declares a Level 2 Emergency. The crisis leader activates the Crisis Management Team.

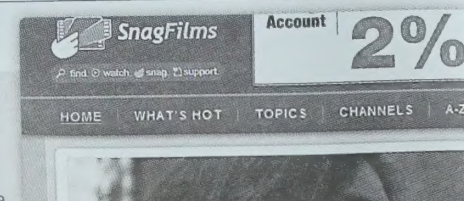
Level 3: one or more of these conditions are met:

- Emergency conditions are widespread.
- Emergency is beyond the capabilities of U of A first responders.
- Multiple alarm response by city emergency services i.e. multiple fire police and ambulance resources on campus
- Disaster conditions may exist.
- There is/could be serious injuries to multiple people.
- There is/could be one or more fatalities.
- There is/could be extensive damage to buildings and property.
- There is/could be environmental harm.
- There is/could be significant media attention.
- There is/could be significant political involvement.
- There is/could be serious or large scale act of violence.
- The university must be self-sufficient for a period.

If these conditions are met, Campus Security Services, in consultation with the crisis leader, declares a Level 3 Emergency. The crisis leader activates the Crisis Management Team.

surf city

It's pretty easy to lose a few hours on YouTube, clicking from cute kitten videos to celebrity sightings to family home movies to homemade vodcasts, but sometimes a viewing diet needs something a little more substantial. SnagFilms (<http://www.snagfilms.com/films/>) offers up a fascinating menu of documentaries that range from offerings from the National Film Board of Canada to in-depth looks at life



around the globe. Travel back in time to a profile of hockey in 1953 or get a list in the 2009 re-release of Carl Sagan's masterpiece scientific series, Cosmos. You may come across a video not available for viewing outside of the U.S. but the global offerings more than make up for it.

Electronics tech in for the long haul

Michael Brown

When the final whistle blows, most people pull on their coat and don't look back as their place of employment disappears in the rearview mirror. Conversely, some never really leave. For proof that Walter Boddez fits into the latter category, one need to look no further than three of his four children, all of whom are in engineering at the University of Alberta.

"My youngest, who is still in high school, says she will study anything but engineering, but she is currently taking the WISEST (Women in Scholarship, Engineering, Science and Technology) program at the U of A, so we'll see," said Boddez, long-time Department of Chemical and Materials Engineering Instrument Shop supervisor. "I love it here because it is not like a factory job at all.

"Every day I get a different list of

things people will need help with. That is what we are basically here for, to help solve people's problems and help come up with ideas on how researchers will achieve their goals."

Boddez, who started at the U of A as an electronics technician in November of 1978 with what is now AICT, still remembers a list of his first tasks—one of which was to make a computer.

"When I started, we would actually build printed circuit boards," said Boddez. "An engineer would design computers and we would put them on boards and build our own data acquisition systems for controlling buildings—some are still in use."

Within six months of joining the U of A, Boddez was loaned out to the Department of Chemical and Materials Engineering and has never been anywhere else.

"You really have to dig into the material and find out what the researchers are working on and how you can help them," he said. "You just

get acquainted with that and then a whole new innovative thing comes along that they want to research, so you shuffle along to a whole new idea."

Boddez says he is also called in to help set up labs and research experiments testing everything from fuel cells and bitumen extraction techniques to testing pipeline.

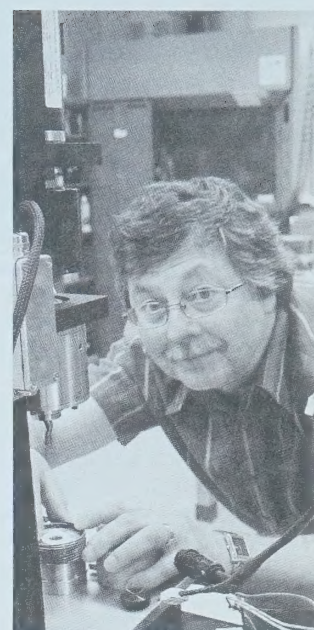
"I sit down with professors and students and choose the equipment for an undergraduate lab, as well as design research equipment," he said. "Sometimes they know exactly what they want and sometimes they just have a concept."

The projects and labs Boddez has been a part of in his three decades at the university are too many to mention, but one has received some international acclaim—the potential drop experiment. The instrument shop has managed to improve the results of this experiment—a procedure for measuring pipeline crack

propagation—by the careful selection of equipment, improving methods of acquiring the information and introducing environmental controls, which includes a double environmental chamber to maintain constant temperature of both the test specimen and the test equipment. Boddez says the result has been recognizable trends being produced in a matter of weeks instead of months.

"These experiments are always such a big joint effort, I don't think very many things are done by one person or one group," said Boddez of his three-person shop. "That's what makes the environment so special. It's a team effort and we don't have constraints; if the people are getting good results from the shop, they're very receptive to new ideas.

"One of the best rewards is to be named in a thesis by a student who comes to our shop and wasn't sure what they wanted or how they would get their thesis done, but we did it." ■



Walter Boddez works on a mini polymer mixer he helped build.

Author looks back at the English department's rise to prominence

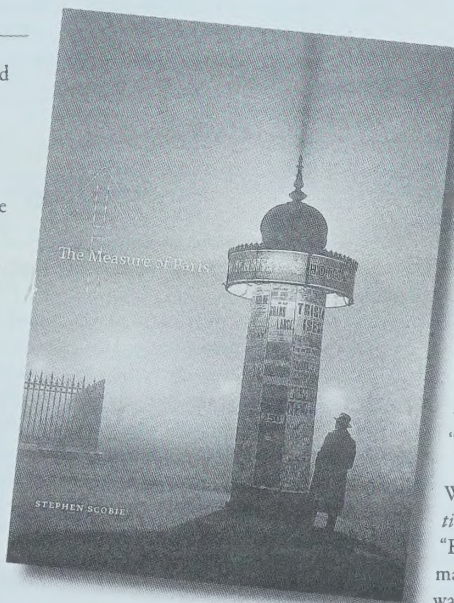
Michael Brown

As the story goes, famed Canadian novelist Hugh MacLennan was in talks to have one of his novels made into a Hollywood movie back in the 1950s. After he completed the painful process of whittling down a 300-page novel to a 100-page script, the producers informed MacLennan that, by the way, the movie would also be set in New York.

MacLennan's protests fell on deaf ears. Said an executive, "Hugh, face it, boy meets girl in New York you've got a story; boy meets girl in Winnipeg, who cares?"

"That was the type of attitude that we were overturning and cancelling out when Canadian literature began as a serious study," said Steven Scobie, one-time University of Alberta English professor chosen to teach one of the U of A's first Canadian literature courses back in 1970. "We wanted to say, 'If boy meets girl in Winnipeg, we care because it is a place we know and places have stories and stories need to be told.'"

Born in Carnoustie, Scotland, Scobie, who, with the help of The University of Alberta Press, recently



published *The Measure of Paris*, worked in the Department of English from 1969 to 1981 before moving to Victoria.

Originally hired to teach 20th-century British literature, Scobie recalls being at the right place at the right time as the U of A became the nexus of a Canadian literature revolution.

"Canadian literature had not been widely taught in Canadian universities up until that time, but I had a

small background in Canadian literature at that time, so I began teaching it," he said.

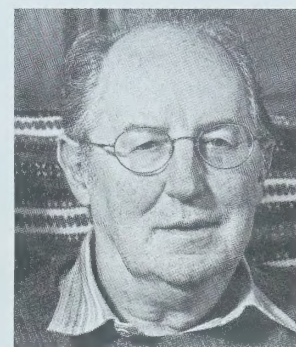
Scobie says one of the great things about the English department then was its integration, seating critics and the authors side by side. Some of those authors included Sheila Watson, a great Canadian novelist and former professor at the U of A, and Margaret Atwood, who was in Edmonton for two years in the early '70s.

"Then, in 1973, Rudy Weibe published *The Temptations of Big Bear*," said Scobie. "Everyone recognized him as a major Canadian novelist and he was sitting right in the middle of the English department."

"Suddenly, there was a tremendous sense of excitement that things were blossoming and growing."

Scobie would ride out the literary highs that came with being at the forefront of a cultural shift, all the while developing a deep passion for a subject an ocean away.

"I first went to Paris in 1970, I fell in love with the place right from the start, and have been increasingly fascinated ever since," he said. "I



Steven Scobie

would say my fascination with Paris has to do with the degree to which the culture of Paris in the broadest sense is so bound up in the physical details of the city itself—its buildings, streets, river, monuments, museums, cinemas. For me, the attraction to Paris is the tremendous interfusion, or intermingling, of the cultural life with the physical place."

Scobie says *The Measure of Paris* started out as a look at images of Paris in the writing of English Canadian authors, such as John Glassco, Mavis Gallant and Watson, who lived in Paris, but expanded in several different directions.

"I write about the social history of Paris in terms of its architecture, its terms of its streets and it also expanded towards personal recollec-

tions," said Scobie. One chapter is dedicated to an apartment building that Scobie had extended stays in on two separate occasions.

"There were German poets, Quebec painters, an ex governor general of Canada, all of who, at one stage or another, lived in this building. I conclude that chapter by saying this just happened to be the one building that I lived in, but a similar chapter could have been written about any apartment building in Paris."

In the end, Scobie weaves together a book that is part straightforward academic criticism, part anecdotal history and part autobiography.

"It's a book where style and approach really shift from chapter to chapter, where the only thing holding it together is the central obsession with Paris." ■

Île de la Cité

In thirty years the trees have grown backwards: pruned in the severe French manner, fists trimmed to their knuckles. In the photo I carry always with me they're taller. Even the trees along the Seine are not reliable markers of time, or measures of loss.

- poem by Stephen Scobie (April 29)

U of A study to question link between extremism and Islam

Michael Davies-Venn

Canada has had a long successful spell with its policies on multiculturalism, but the country is not immune to the extremist violence that has plagued other nations, says a University of Alberta political science researcher.

Andy Knight recently organized a conference at the U of A that explored the causes of extremism and sought to examine the extent to which xenoracism—a form of racism that Knight says is based on fear of a foreigner or perceived foreigner—is prevalent in Canada, UK and the United States.

One of the meeting's outcomes was the initiation of an international comparative study that will examine the links between xenoracism and extremism.

Knight says Canada has done a better job of integrating foreigners in mainstream society than countries such as France, the UK and Holland.

"The reason we can come to that preliminary conclusion is that these are countries that do not have an official multicultural policy like Canada does, which was due to the foresight of people like Pierre Trudeau, who decided that it was important not to just talk about multiculturalism but to make it a legal part of Canadian society," Knight

said. "We can't rest on our laurels and think because we have had 40 years of multiculturalism that something can't change overnight."

Knight says the study will focus initially on Muslim communities because of 9/11, bombings in the U.K. and the assassination of Dutch filmmaker Theo van Gogh, all of which have been catalysts for xenoracism against people of the Muslim faith. He says the research will benefit countries dealing with issues around xenoracism, including Canada.

"The Canadian government needs to recognize that xenoracism is a potential problem. We have seen it hap-

pen in the UK, France and the Netherlands. And the government should start to think about how best to ensure that we do not move down the same road.

"We hope the outcome of the research has an indelible impact on Canadian social policies, and that of other countries including the UK and France. We will ensure governments get access to the data and recommendations, and hopefully in doing so influence their thinking when it comes to making policies," said Knight.

Researchers for the study will come from the Worldwide Universities Network. The U of A is a member of the network, which was formed to foster

global collaboration through research and education between students and faculty and to find solutions to pressing global issues. ■

"We can't rest on our laurels and think because we have had 40 years of multiculturalism that something can't change overnight."

Andy Knight



On July 8, students at the U of A's Space Academy day camp launched a weather balloon armed with two still cameras programmed to snap pictures every 15 seconds. The balloon, set free from Varsity Field, sailed to a height of 30 kilometres, taking photos of the entire voyage to the edge of space before crashing back to Earth 30 minutes later.

The view from up here: summer camp reaches new heights

Brian Murphy

The significance of group photos and handmade crafts meant as summer camp souvenirs can go from important keepsakes to a faded memory pretty quickly, but the cadets at a University of Alberta's space exploration camp are taking home pictures that document their part in a mission to the edge of Earth's atmosphere.

The Space Academy day camp is a partnership between the U of A engineering faculty's DiscoverE summer program and the university's Institute for Space Science, Exploration and Technology, known as ISSET. The camp introduces junior-high students to the rigours of space exploration.

"A real space mission takes six to 10 years to plan," said instructor Laura Mazzino. "We compress it down to a week, touching on design, manufacture, launch, recovery and

analyzing the data."

The instructors know the kids can take only so much classroom instruction before they want to get outside and, at this camp that means blasting something into the sky. On July 6, the campers spent the afternoon launching model rockets from Lister Field. Mazzino says the rocket launches taught the kids about safety protocols and whet their appetite for the big mission later in the week. "On Thursday we launched a weather balloon with cameras attached; that's a real space mission," said Mazzino.

With the help of an amateur group of space enthusiasts who launch and recover weather balloons, the space campers sent up a weather balloon armed with two still cameras programmed to snap pictures every 15 seconds for the duration of the mission. Campers like Matthew Coyne say they'll treasure the photographs.

"It's hard to explain, it's that amazing," said Coyne. "We were part of something going into space."

Mazzino has launched a lot of weather balloons but she says she still gets a thrill when they race to the sky. A camera shooting pictures towards the ground records the rapid ascent of the balloon and a side-mounted camera takes pictures of the horizon.

Campers like Rafael Vingle and Mazzen Black couldn't believe how fast the balloon went up.

Using radio tracking equipment and global positioning system, or GPS, signals, Mazzino and the students tracked the balloon to a height of about 30 kilometres above

Earth. "That's the thermosphere," said Mazzino. At that altitude the onboard cameras recorded pictures showing the curvature of the Earth and that, says Mazzino, made the flight a space mission. "We did successfully put an artifact in space, analyzed the data provided and we recovered the equipment."

As predicted, the balloon burst at 30 kilometres because of the near zero surrounding air pressure and 30 minutes later hit the ground in a field southeast of Edmonton International Airport. The recovery team tracked the spacecraft down and had it back at the camp's mission control about two hours after the launch.

Space camper Coyne definitely wants some hands-on experience above the planet. "If I had a chance to experience that for real, not just through pictures, it would be unbelievable."

A second wave of young space enthusiasts started the camp this week and wrap up their Space Academy experience July 16.

Camp organizer Melanie Faulknor is already focused on next year's program. "We started with launching model rockets and now we've got pictures showing the curve of the Earth; we'll put our heads together and come up with something great for next year." ■

Ecosys Modelling Project offers insight into climate change

Alexandria Eldridge

A University of Alberta researcher says that climate change might not negatively impact agriculture and forest productivity in the Canadian prairie and boreal forest regions, although it may do so elsewhere.

Robert Grant isn't just speculating; he has developed a computer model that allows him to mathematically predict the effects of disturbances on terrestrial ecosystems.

"The end goal is to have a mathematical model that will faithfully and accurately reproduce, to the best of our understanding, the complex behaviour of terrestrial ecosystems under defined conditions," he said.

The Ecosys Modelling Project is still being perfected, but so far Grant has done some preliminary

work on projecting the effects of climate change on prairie and boreal ecosystems.

"Generally speaking, for most scenarios that have been developed for this part of the world, the outlook in terms of forest and agricultural productivity is fairly positive. The only areas where the outlook may not be as positive is southeast towards the more arid zones, where water limitations may become more acute," Grant said.

However, Grant emphasized that these findings are only valid in this part of the world and there are some other limitations of the projection, such as the uncertainty about how precipitation changes with climate change.

Right now, Grant is perfecting the details of his model and ensuring its accuracy by comparing it with experimental observations gathered

by scientists throughout the country and overseas.

"Hopefully all the measurements that they take will be consistent with output from the model and that would then corroborate the hypotheses on which the model is based."

The hope is that if the hypotheses are proven correct, the model can be used to make other projections based on the same principles.

"If the hypotheses are basic and robust, then they should work under other conditions for which these experimental observations simply can't be taken by virtue of cost or labour. And we can then project how an ecosystem can behave under conditions other than those for which the experimental measurements are available," Grant said.

Some of these conditions include climate change, something that Grant has been looking at for several years. The model can also project the impact of disturbances such as clearcuts, forest fires or pests. Grant also mentioned that it can project the implications of alternative management practices such as changing harvest practices.

Grant began this project in 1987. The model is extremely detailed and considers a vast array of factors such as soil composition, temperature, precipitation, wind speed, harvest and tillage.

"There are maybe 20 or 30 of these models, but within this community of modelling groups looking at terrestrial ecosystems, I think my project has a reputation of being perhaps the most complex and the most detailed of the whole lot," he said. "Just as any organism has its niche within the ecosystem, I seem to have established a niche in the extremely complex end of ecosystem modeling." ■

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Butterfly experts migrate to U of A for conference

Brian Murphy

Butterflies are self-propelled flowers." That's an oft-used description of the delicate insects that are under the microscope of about 200 researchers who gathered at the University of Alberta from June 29 to July 2 to attend the sixth International Conference on the Biology of Butterflies.

Not to be confused with avid butterfly collectors whose main interest is exotic colours, these researchers use the flying insects to answer a wide variety of pressing science questions. In fact, conference co-chair and U of A ecologist Jens Roland says butterflies are a good fit for studying human genetics and climate change.

"The way genes work in butterflies is exactly the way they work in humans," said Roland.

Researchers are busy studying the genetic trigger that changes the colours and patterns on the wings of some butterflies throughout their life cycle. "It's a very easy system to understand in butterflies; it's plain as day; the colours change."

"In humans and other species those genetic changes are more subtle, but butterflies are a great model for understanding evolu-

tionary biology and development."

Because butterflies are exothermic, meaning their body temperature is controlled by their atmosphere, researchers say they're also a good species to use as monitors for climate change.



Researchers say butterflies are a great model for understanding evolutionary biology and development.

Roland says butterflies have reacted to the warming trend of the planet by shifting their territories northward over the last few decades. As the southern range of some species becomes too warm, they shift northward to cooler temperatures.

Plants form risk-reward strategies for finding food

Brian Murphy

A University of Alberta research team has discovered that a plant's strategy to capture nutrients in the soil is the result of the integration of different types of information.

"This is something we assumed only happened with animals," said ecologist and lead researcher J.C. Cahill, who explains a plant's strategy mirrors the daily risk-versus-reward dilemmas that animals experience in their quest for food. Cahill compares the analogy of a plant's strategy with the strategy a squirrel would use if it came across a tray of peanuts.

"The squirrel figures out its position in relation to the food and the position of any competition for that food," said Cahill. "If there are plenty of peanuts, the squirrel will risk conflict with a competitor or a brush with a predator, but if there are very few peanuts in the tray the reward just isn't worth the risk."

After a series of experiments the researchers discovered a plant also factors in positions of reward and competition in acquiring its resources. "This ability to integrate information is a level of complexity never seen in plants before," said Cahill.

Cahill and his colleagues used

the common agricultural weed, velvet leaf, to demonstrate the behaviour. Using a mini-rhizotron camera, referred to by Cahill's team as a "camera on a stick," the researchers compared root movement in relation to various placements of nutrients and competing plants.

The team found that when one plant was placed in a pot where the nutrients were evenly distributed, the roots spread out, occupying the entire breadth of the soil.

But the camera on a stick showed things got more complicated when two plants were placed in the same pot and the nutrients were moved around. Cahill says when two plants had access to nutrients spread evenly in the pot, their roots showed a definite reaction. "The roots stopped growing laterally towards each other," said Cahill. "In terms of risk versus reward, the plants avoided each other because the rewards were low. The plants already had plentiful food resources."

In the third scenario, two plants were placed in a "cage match" of sorts:



J.C. Cahill has found that a plant's strategy to capture nutrients mirrors the risk-versus-reward dilemma that animals experience.

Two plants in a single pot reacted to nutrients placed between them. "Both plants grew their roots much closer towards each other," said Cahill. "In this case the rewards were high, and the plants risked increased competition."

The work of Cahill and his colleagues was published last month in *Science*.

The next step for the researchers is to determine how a plant, without the benefit of a brain, can determine locations of food resources and competition and adjust its movement. ■

Researchers are seeing examples of this in North America and Europe. Roland says because butterflies are relatively delicate compared to robust mammals, roller coaster-like variations in temperature are marked by sharp spikes and valleys in their population numbers.

Roland's own research on the alpine butterfly in Alberta shows the insect responds well when winter temperatures fall within an average range, but their population numbers collapse when winter temperatures break the trend with unexpected highs and killer lows.

"One of the predictions for

climate change, in addition to an overall warming trend, is more periods of temperature variation," said Roland. "That puts these butterflies right in the zone for population decline."

While some species are adapting to climate change with a shift to cooler climates, Roland says there's an obvious limit, especially for butterflies in this part of the world. "The problem is our continent runs out at the Arctic Ocean," said Roland. "Polar bears are up there already dealing with climate change and they've got nowhere else to go, so there are limits for all species." ■

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Career Opportunity: Saskatchewan Research Chair in Multiple Sclerosis Clinical Research

The new Saskatchewan Research Chair in Multiple Sclerosis Clinical Research is being offered together with a tenure track position at the University of Saskatchewan College of Medicine. The focus is on clinical research to identify causes of multiple sclerosis, develop new or improved treatments and therapies, and ultimately find a cure.

The Saskatchewan Health Research Foundation (SHRF) and the Saskatoon City Hospital Foundation are pleased to announce this new \$1 million research chair partnership. Both partners will provide \$100,000 per year for five years.

This is the third Chair to be announced through SHRF's Saskatchewan Research Chairs Program, building health research capacity in critical areas for Saskatchewan.

For more information about this opportunity and application requirements, visit www.shrf.ca. Deadline for applications is October 1, 2010.

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Occupational therapy students help man with MS play his guitar

Carmen Leibel

Forty-three year-old Randy remembers the good old days, when playing the guitar was his favorite pastime. He even played at a semi-professional level. But shortly after his 2002 diagnosis with multiple sclerosis the muscles in his right hand became weak, forcing him to stop playing his guitar.

But eight years after his diagnosis, a group of occupational therapy students from the University of Alberta's Faculty of Rehabilitation Medicine helped Randy make music once again.

It began a few months ago when a group of first-year students were assigned a project aimed at helping someone who has a functional limitation, for which their needs are inadequately met. The students heard about Randy and his desire to continue to play guitar.

"Once we met Randy for the first time, he was so personable and willing to work with us that we all knew within minutes of meeting him that we had made a good decision for this project," said student Jeff Brose.

"Whenever he spoke about music or his guitars he lit up and was so passionate that as a group we had to try," added student Danielle Costello.

But it wasn't an easy task. Costello says the tremors in Randy's right arm made it difficult for him to strum.

"Our main focus was to try and find a way to steady his arm and allow close enough access to the strings," said Costello.

The students used the skills they learned in the classroom to brainstorm a range of options and come up with a unique design made from inexpensive material. Brose calls it a simple device that works like magic.

"We used splinting material to

create a cover for the guitar strings so that his wrist would not rest on them." Brose adds, "We then shaped this cover so that it would place Randy's hand in an ergonomic position for strumming."

Randy will never forget the moment he was able to strum his guitar again, saying it was "some of the best times I had since I was diagnosed."

It was also a magical moment for the students. "Seeing Randy play again was an amazing experience; for some of our group it reaffirmed wanting to be occupational therapists," said Costello.

"That day when we finished our meeting with Randy we high-fived right outside his door and then could not wipe the smiles off of our faces for the rest of the evening," Brose adds, "I think that this project gave us the confidence and the reassurance that we could indeed make an impact in a

client's life."

Lessons like that are exactly what this project is about.

"They were able to put in place a real solution to a real problem and see for themselves that engagement in this meaningful occupation has a direct link with health and well-being," said assistant professor Anita Hamilton.

Hamilton says this experience will help the students as they prepare to work as occupational therapists.

"The learning outcomes from this project are immediately evident as students head out to do fieldwork, because students have told us that they used knowledge from their own projects, or other students' projects, in situations they have come across in fieldwork."

Since being introduced to the students' project, the Strum Rock It, Randy's condition has spread to

"Whenever [Randy] spoke about music or his guitars he lit up and was so passionate that as a group we had to try."

Danielle Costello

include his left hand and arm. He just recently he realized he is no longer able to use the device, but says he's grateful for the time he had with his guitar.

"Those few weeks with the Strum Rock It that allowed me to make music again were irreplaceable; I only wish they would have lasted longer," said Randy. "The students were excellent to work with, were entirely helpful and should be commended for all the work they have done." ■

Teaching and Learning Enhancement Fund

Videos bridge gap between classroom and clinic

Holly Gray

Almost everyone loves watching videos. And after receiving funding from the University of Alberta's Teaching and Learning Enhancement Fund, Geoff Bostick and his master's students in physical therapy will be watching more of them.

The Faculty of Rehabilitation Medicine professor has created an initiative to develop videos that engage students in real-life scenarios with patients.

"A real patient will be videotaped, and the students will be able to go online, view the video and make decisions on what to do," Bostick explained. "In this situation, the students are more likely to be engaged as they can see themselves in that clinical encounter."

The assessment of a real-life patient can be a daunting task for physical-therapy students, even after countless hours spent pouring over textbooks and memorizing technical knowledge.

Bostick and his colleagues Bernadette Martin, associate chair in the Department of Physical Therapy, and Dwight Harley, director of psychometric in the Division of Studies in Medical Education, are looking to bridge the gap between classroom studies and clinical assessment with the \$14,742 from the U of A's TLEF.

The TLEF project, entitled "Authentic Video Case Studies to Enhance Clinical

Reasoning in Physical Therapy Student," will also enable instructors to develop measures of clinical reasoning specific to U of A physical-therapy students.

Bostick says the use of high-quality equipment and a professional videographer will help immerse students in the learning experience. Benefits include the students being able to individually work through the program at their own pace, so they're never too rushed or held back by slower students.

"The videos are flexible in the sense that they could be used in face-to-face or online courses now that all of the physical therapy courses are on eClass," said Bostick. "Our department is also testing a satellite program in Augustana Campus so things like video case studies can be delivered online and are helpful with distance learning."

The program will also allow instructors to track transactions learners make while working through the case, and this information will be gathered to assess the students' clinical reasoning.

"This is the closest thing I've thought of to try and get in their heads," said Bostick.

"We will analyze their decisions as a way to understand how our students reason clinically. While there is a lot of literature on clinical reasoning in health science students, it is important to get information about our students. Because our program, instructors, and student experiences are all different, our students' clinical reasoning may be different from what is written in the literature because of this." ■



Geoff Bostick

Educators creating new methods for reaching students in all class sizes

Dawn Ford

One of the most complex responsibilities of teachers is assessing their students, according to a 2007 Alberta Education report. And the bigger the class size, the more difficult the task of providing assessments that measure and support student learning, says a researcher and teacher in the U of A's Faculty of Education.

It's the reason Cheryl Poth and her educational psychology colleague Lia Daniels are developing an instructional approach built around activities designed to reach and support students in their own learning and in classes of all sizes. Their project, "Enhancing the Learning Environment in Large-class, Multi-section Courses," is one of 12 new projects that will benefit from the University's Teaching and Learning Enhancement Fund, which was launched in 2006.

Their project includes developing resources for enhancing the learning environment of students and designing professional development resources for instructors and teaching assistants who are involved in multiple sections of the same course. "In this way, teaching assistants are engaged more fully as part of the instructional team," said Poth, who is also a professor in educational psychology's Centre for Research in Applied Measurement and Evaluation.

"Among the greatest challenges for the large-class, learning environment (defined as more than 100 students) is when, compared to smaller classes, there are fewer opportunities

for students to receive individualized feedback and for instructors to use different methods of teaching and assessment," said Poth, who adds although instructors and students may prefer small classes, it is not always feasible with large numbers of students who require a particular course.

The project incorporates a variety of instructional strategies like the integration of "clicker,"

which is a wireless response system that enables students to respond to classroom instruction by using a "clicker," or hand-held response pad, to send his or her information to a receiver. Examples of activities include reviewing previous concepts to allow the instructor to gather information about their students' learning progress and modify instructions as needed. Also, it can be used at the beginning of instruction to access what sort of information students are

starting off with.

"Effective instructional approaches that engage students in large classes help inform how we create learning environments for all students regardless of class size," said Poth.

"By creating instructional resources, we can help instructors who teach across multiple sections to co-ordinate and optimize use of resources, such as those offered by teaching assistants, so that students have increased access to feedback to support their own learning."

The TLEF, launched in 2006, supports innovative projects at the U of A that create exceptional learning experiences and environments for students. ■



Cheryl Poth

Sticking to the silver solution



Gloria Jensen

Silver, the oldest and most effective antibiotic, has recently found its way into hundreds of products from toothpaste to bed sheets, promising the complete annihilation of bacteria.

Something so natural may seem like the perfect solution to eliminate bacteria, but there have been some concerns.

When silver is broken down into nanoparticles, a little can go a long way—and it does. Nanosilver in products like laundry soap will migrate to places it isn't welcome, such as water treatment plants where bacteria is

needed for water purification. It is also very expensive to produce, so losing particles through migration proves to be costly.

Steven Kuznicki, a prolific inventor and professor in the Department of Chemical & Materials Engineering at the University of Alberta, discovered an inexpensive and simple way to "fix" these problems—a nanosilver carrier that would keep the particles fixed in place, unable to migrate.

"Because the 'fixed' nanosilver solves the major problems—expense and migration—it will allow new, broader applications," Kuznicki said.

With the help of TEC Edmonton,

the U of A's technology transfer agent, Kuznicki formed a U of A spinoff called Alberta Nanometals Inc. TEC Edmonton has been working with the company since its inception, helping Kuznicki protect his intellectual property, refine his business plan and attract investment.

Kuznicki is looking for investment to start producing his product on a larger scale. Steve Jakeway, an entrepreneur-in-residence at TEC Edmonton, recently started working with Kuznicki to get him prepared to pitch to investors.

"I certainly expect that Alberta Nanometals, with the help of TEC

Edmonton, will receive the needed investments," Jakeway said.

Even with Kuznicki's 23 years of industry experience prior to his academic career at the U of A, he is grateful for the commercialization support that TEC Edmonton has provided.

"TEC Edmonton is determined to help us succeed and get Alberta Nanometals to where it should be," Kuznicki said. According to Kuznicki, that determination makes the difference when attempting to become a successful inventor. He is determined to turn his invention into a widely available, inexpensive treatment for microbial pathogens. ■

Gastroenterologist brings real world into the classroom

Michael Brown

While Clarence Wong believes in using all the teaching tools available to him to accommodate different learning styles, he says there is one that is a universal teaching method that he can't do without—the front lines.

"Every student needs their own message that they understand, so what I've tried to do is make the information broad enough for groups of students to learn in their own way," said Wong, a professor in the Department of Gastroenterology since 2003. "But I always bring to the classroom what happened at the hospital recently to show that it is

relevant in the lecture."

Even within a large group of 175 people, Wong says real-world medicine can be interactive, especially with the use of the audience response systems fitted into medical classrooms.

"I have even brought patients into the classroom," said Wong, who recently received the University

of Alberta's Rutherford Award for Excellence in Undergraduate Teaching. "Even though it is nerve-racking, my classes are usually well-attended, well-liked sessions."

Wong says having classes as big as some first-year medicine classes are means there are limitations on how interactive he can be, but says he structures the class so students feel that they can ask a question at anytime.

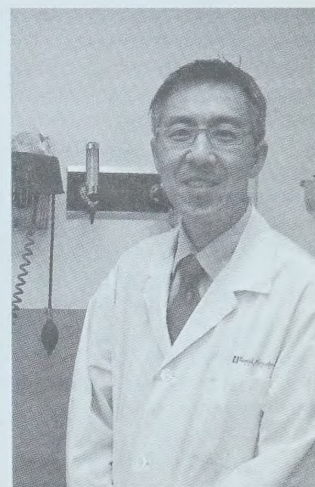
"I think the best teachers I ever had are the ones with whom I felt totally comfortable asking questions," said Wong, who has a degree in medicine from the U of A, but also studied at the University of Calgary and McMaster University. "Their classrooms were always very collegial, very non-threatening and safe environments. I think that is where you learn the best."

One advantage that Wong says the Faculty of Medicine & Dentistry has over other faculties is the length of time the professors typically have with students throughout their education.

"I see them as students, as senior students and as residents, so I always get a good sense of where they are deficient," he said. "A lot of that comes from the beginning where students just don't get a lot of grounding in the subject or didn't have a good chance to ask."

Another advantage of working within the U of A's Faculty of Medicine & Dentistry is that faculty administrators respond to the needs of it professors. As an example, Wong cites the timely fashion in which medical classrooms were equipped with the ability to support vodcasting, the online delivery of lectures or podcasts, a practice that is catching on across the campus.

"The faculty, right up to our dean, is very open to different kinds of changes, and they put funding into it," said Wong. "I think it allows the students to really benefit from it in the end." ■



Clarence Wong

Speech professor receives international computing award

Holly Gray

Albert Cook didn't become interested in rehabilitation medicine until the late '70s, when his son was born with a severe intellectual disability.

"I started off in electrical engineering and I probably would still be in electrical engineering rather than rehab if it hadn't been for Brian," said the professor in speech pathology and audiology at the University of Alberta's Faculty of Rehabilitation Medicine.

Now, more than three decades later, Cook is receiving the 2010 Special Interest Group on Accessible Computing, or SIGACCESS, Award for Outstanding Contribution to Computing and Accessibility, an international award in recognition of his lifelong dedication to the research and development of assistive devices and computing technology for persons with disabilities.

Even though his own son is now an adult, Cook still takes a special in-

terest in children. His recent research with interdisciplinary teams is focused on the effects robot use has on cognitive and language development in children who have disabilities.

"The interesting thing about working with children is that you get to discover their potential and get to help them develop their abilities," he says.

He explains that for children with severe disabilities, the use of robotics provides an opportunity for them to explore and demonstrate what they understand in a way that wouldn't be possible without the use of technology. While using a robotic arm during play, for example, differences in a child's responsiveness, amount of vocalization, and appearance of interest were noted.

But Cook's work encompasses far more than only working with children. The former dean of the Faculty of Rehabilitation Medicine has Canadian and foreign patents, more than 200 scientific publications, and is often a keynote speaker at conferences around the world. He also works on establishing the faculty's

international connections by teaming up with foreign researchers, which he thinks enriches U of A students' educational experience by showing them perspectives to which they wouldn't otherwise be exposed.

Cook has also wrote a textbook popular in occupational therapy programs, *Assistive Technologies: Principles and Practice*. The book has been translated into several different languages including Chinese and Korean. The book's far reach still surprises him.

"When you sit in a little office like this and you write, you never think anybody's really going to read it, and then when you find out that people from faraway places actually make use of it—it's nice," he says.

Cook will undoubtedly come across someone who has read his reference book when he speaks at ASSETS 2010, a conference on computers and accessibility put on by SIGACCESS in Orlando, Fla. this October.

He plans to focus on the ways that technology has impacted computer use for people with disabilities and some of the things people are doing to make computers more accessible for people who have disabilities. ■



Al Cook

ALES celebrates career of wildlife expert

Alexandria Eldridge

After a career that has spanned 36 years, numerous countries and a number of research areas, Bob Hudson is retiring from his position as professor of wildlife production/management in the Faculty of Agricultural, Life and Environmental Sciences.

A wildlife expert, Hudson most recently served as associate dean (international) and held a joint appointment between the departments of renewable resources and agricultural, food and nutritional science.

Hudson has travelled professionally to many countries across the globe including Sweden, Chile, Korea, Malaysia, Thailand, India, Cameroon, Zimbabwe and Kenya. However, his interest in wildlife actually began when he was growing up in rural Manitoba.

"I was always interested in wildlife, particularly waterfowl, because they were close at hand, but I always dreamed of working with something larger and more dramatic," he said.

Thus, his international experience was a natural fit. As he puts it, "people interested in large mammals are naturally drawn to Africa." His

initiation to Africa came in the late 1970s and changed the course of his career.

"An invitation to serve as senior ecologist for the World Bank Very Large Herbivore Study, which looks at elephant, rhino, hippo and buffalo, opened an academic adventure that changed my view of wildlife management and, indeed, of life forever."

Hudson came to the U of A from the University of British Columbia in 1974 and took a position as an assistant professor in animal science. Hudson excelled at the U of A, and became a full professor in 1985.

From there, Hudson's career quickly launched beyond research and into administration. He served as associate dean (academic/international) for the faculty from 1996 to 2001 and then became associate dean (international) in 2007, a position he held until his retirement.

Hudson did accomplish great things during his time at the U of A, helping develop important relation-

ships both on campus and with other institutions on the international scene. He persistently dared students

and faculty alike to "make a world of difference."

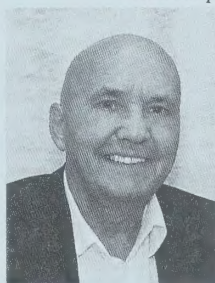
Kennelly added that Hudson's positive attitude and skills will be missed in the dean's office.

"Bob has an amazing ability to see the big picture and to integrate complex ideas in a way that others could only

dream about doing. I will miss his strong support and creative ideas, and his wonderful sense of humour."

Despite retiring, Hudson is not going to stop his international work. He hopes to help the Aga Khan University (East Africa) by collecting and developing conceptual and mathematical models—and other learning adventures about land and people—for their new campus.

"Beyond having time to learn to properly use electronic gadgets, I intend to explore two themes of growing importance: one, academic globalization, and two, sustainability science," he added. ■



Bob Hudson

EDMONTON

Laurier – Quesnell Footbridge Closure

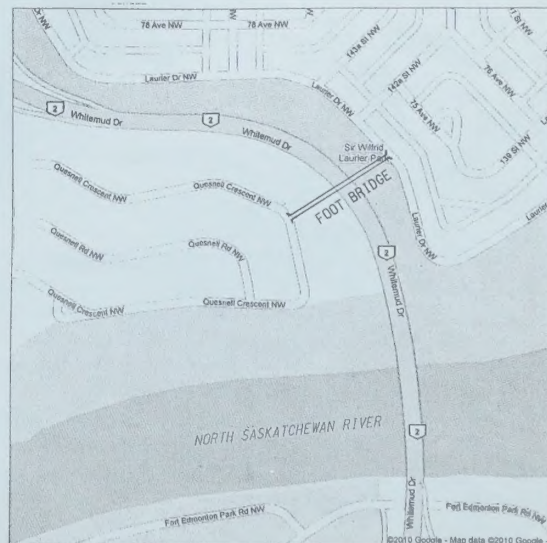
July 5th – September 30th

The City of Edmonton will be closing the Laurier-Quesnell Footbridge from July 5th to September 30th for maintenance and rehabilitation work.

During that time, a shuttle bus will be available in the mornings from 7:00 a.m. to 10:00 a.m. and in the evenings from 4:00 p.m. to 7:00 p.m. to enable pedestrians and cyclists to cross Whitemud Drive. Pickup and dropoff points will be located at each end of the footbridge.

All users are advised to use the shuttle bus or find alternative routes during this period.

For comments, questions and concerns, please call Wayne Pelz, Drainage Services, City of Edmonton at (780) 496-5535 or email at wayne.pelz@edmonton.ca



THE CITY OF
Edmonton

news [shorts]

folio presents a sample of some of the research stories that recently appeared on ExpressNews, the U of A's online news source, and other campus news sources. To read more, go to www.expressnews.ualberta.ca.

Student race-car design team speeds to fourth place

A team of engineering students has returned from an international design competition with the best result ever for the U of A's Faculty of Engineering, placing fourth out of 80 teams.

Held in Fontana, California in June, the annual competition requires students to design and build an autocross race car that is suitable for mass production and sale. Skills required go beyond design and into manufacturing parts, as the team also took top spot in the cost-analysis event.

For the past few years the team has been on an upward trajectory, finishing higher and higher in final standings with each passing year.

"It definitely enhances your education—it helps you get a fuller understanding of what you're doing in the classroom," said Daniel Vaandrager, a mechanical engineering co-op student who leads the Formula Society of Automotive Engineers team. "You get to see if your designs actually perform their function on the race track, and you learn people skills like team management and working with sponsors and working with technicians in the shop."

A new season, a new coach

For the second straight year, the U of A Pandas field hockey team will have a new head coach, as Stefanie Sloboda takes over on an interim basis.

Sloboda becomes the seventh head coach in Pandas' field hockey history, and only the fourth since the 1981-82 season, thanks to Dru Marshall and Carla Duncan (née Somerville) having respective 21-year and seven-year tenures.

Sloboda takes the reins having also been an assistant coach with the Pandas since the 2007-08 season, helping Alberta to two CIS silver medals. The Winnipeg native spent five seasons with the Pandas as a field-hockey athlete, winning a CIS bronze medal in 2000-01 and earning team MVP honours in her 2004-05, her final year. Sloboda graduated from the U of A with a degree from the Faculty of Physical Education and Recreation, before joining Field Hockey Alberta as junior program administrator.

"I'm looking forward to continuing the team's success, through the values and beliefs of our exceptional program," said Sloboda, who is looking to build on last year's silver medal at the CIS championships in Victoria. "I'm really excited to get going with the team and excited for our returning athletes as well as the new recruits."

C.D. Howe Institute scholar wins prestigious Purvis Memorial Prize

Economics professor and C.D. Howe Institute Fellow-in-Residence Bev Dahlby has won the 2010 Doug Purvis Memorial Prize for his study, *Once on the Lips, Forever on the Hips: A Benefit-Cost Analysis of Fiscal Stimulus in OECD Countries*.

The award, one of the most prestigious in economic policy, is awarded by the Purvis Foundation to the author/authors of a highly significant, written contribution to Canadian economic policy.

The prize-winning study, published in December 2009, analyzes the large fiscal stimulus measures adopted by Canada and most OECD member countries in the wake of the global financial downturn and recommends that they be evaluated on a benefit-cost basis. The paper also calculates the minimum economic benefit per dollar of additional spending that a fiscal-stimulus project must provide in order to improve welfare. In Canada's case, Dahlby calculated that to be justifiable on a benefit-cost basis, a fiscal stimulus project that improves consumptive public services must provide at least 73 cents in benefits for every dollar of fiscal stimulus. For a productivity-enhancing infrastructure project, the present value of the increase in labour productivity must be at least 61 cents for each dollar spent on infrastructure.

Diabetes study to compare moderate and high-intensity exercise in 55 to 75 year olds

If you're between 55 and 75 and have type 2 diabetes, you could be part of a research study that could help you become more physically active—and advance new knowledge about mitigating the physical toll of the disease that affects one in 20 Albertans.

Normand Boulé, an exercise physiology professor in the Faculty of Physical Education and Recreation, is seeking 20 men and women between the ages of 55 and 75 who have type 2 diabetes and who do not smoke to take part in a pilot study. Boulé explains that this particular age group sees a decrease in physical activity, a decrease in muscle mass and an increase in body fat, particularly intra-abdominal fat, all of which are strong risk factors for type 2 diabetes.

Participants will be randomized into two groups with one group exercising at a moderate pace, while second group will do high-intensity interval training. As participants progress through the study, the amount of exercise will progress from 30 minutes, three times per week to 60 minutes, five times a week.

"We know that moderate physical activity can be very effective for people with type 2 diabetes, but we don't know about the effects of the higher intensity exercise," said Boulé. "We are particularly interested in changes in intra-abdominal fat since fat stored in this area seems to play a greater role in the development of diabetes and heart disease."

To enquire about participating in the study, please email exercise@ualberta.ca or phone research assistant Alanna Friesen at 780-492-8739.

Adventure for humanity's sake

Julia Necheff

Every couple of years Vivien Wulff shuts the door on her office in the Faculty of Medicine & Dentistry at the University of Alberta and makes a long trek to a remote, mountainous location in Ecuador.

But this isn't adventure for adventure's sake. Wulff makes the trip for Project Esperanza, or Project Hope, a volunteer medical/dental mission to the South American country to provide health services to a population very much in need of them. Even though she is more at home with spreadsheets than dental instruments, Wulff, a chartered accountant by profession, dons a set of scrubs and assists as a dental team treats scores of children and some adults in a rudimentary, makeshift clinic.

"The rural residents have so little of what we take for granted—like clean drinking water, a decent school, regular medical care," Wulff says. "I saw one child fill a water bottle out of ditch," she recalls. "So many of them have bad oral health because they don't see dentists, and they drink pop and sugar drinks because they don't have clean water."

Wulff, executive director of the faculty, regularly uses vacation time to take part in the annual Rotary Club-sponsored mission to Ecuador. It was started by Edmonton orthopedic surgeon and U of A alumnus Tom Greidanus, who first led a medical team there 10 years ago. Project Esperanza has now grown to include 40 or so health professionals who donate their time and expertise to improve the quality of life of Ecuadorans.

Back at home, Wulff provides administrative oversight to a large, complex faculty with a budget of about \$400 million; 2,500 people including faculty, administrative and support staff; eight schools, 20 departments and seven divisions; plus many research groups, centres and institutes.

That she carries significant respon-



Vivian Wulff volunteers with Project Hope, a volunteer medical/dental mission to South America.

sibility is one thing. That she does it so well, and yet also makes time for volunteer work in a developing country and for service to her community and professional organization, recently earned Wulff a prestigious Distinguished Service Award from her peers in the Institute of Chartered Accountants of Alberta. Not to mention the admiration and gratitude of two deans, current dean Philip Baker and past dean Tom Marrie, who both nominated her.

"Vivien combines an almost encyclopedic knowledge of the intricacies of our financial arrangements, with a passion to ensure that high standards of fiscal probity, and of transparent equity, are maintained," said Baker.

The faculty has multiple funding sources and financial arrangements. Wulff says one of her main tasks has been to clarify these and keep track of them. She has also spent the last few years working with the provost's office, securing expansion funding for both the medical and dental schools, and working through health and education restructuring in the complicated area of academic medicine, or as she puts it, "the shifting landscape of academia and health care" in Alberta.

"I think our faculty is much more complex than most because we are at the

juncture of advanced learning and Alberta's health-care system," Wulff notes.

Deputy provost Dru Marshall says Wulff has one of the most complex financial jobs on campus. "Vivien meets with a wide variety of stakeholders, and does an excellent job of representing all categories of staff in the Faculty of Medicine & Dentistry in a way that is educative, supportive, respectful and transparent," says Marshall. "Her work is critical in ensuring that educators, researchers and clinicians are supported in their efforts to make a difference in the world."

An alumna of the U of A Faculty of Business (B.Comm., 1978), she joined the Faculty of Medicine & Dentistry in 2004. Prior to this, she was acting chief financial officer and then assistant dean of administration for Augustana University College in Camrose, Alta., during which time she oversaw the administrative aspects of Augustana's merger with the U of A.

"The work Vivien has done, both in her career at the University of Alberta and in her various volunteer roles, makes her truly deserving of a Distinguished Service Award," said Jane Halford, the CEO and executive director of the Institute of Chartered Accountants of Alberta.

laurels

"Alberta Venture" magazine recently announced Alberta's 50 Most Influential People 2010. The list includes 14 people who graduated from the U of A, as well as Lorne Tyrrell, professor in the Department of Medical Microbiology and Immunology and founder of the Li Ka Shing Institute of Virology, former U of A chancellor Eric Newell, and Bob Steadward, founder and honorary president of the U of A's Steadward Centre for Personal & Physical Achievement.

University chancellor Linda Hughes and U of A student Orysa Svystun were recognized for their achievements during the YWCA Women of Distinction Awards June 13 at the Edmonton Expo Centre. Hughes won the Lois E. Hole Award for Lifetime Achievement and Svystun won in the category of Youth: 18 & Under.

Sarah Gleeson, professor in the Department of Earth and Atmospheric Sciences, has received the Young Scientist Award from the Mineralogical Association of Canada and the William Harvey Gross Award from the Geological Association of Canada (Mineral Deposits Division).

Greta Cummings, professor in the Faculty of Nursing, has received the Order of Merit for Nursing Research from the Canadian Nurses Association.

Norman Beaulieu, professor in the Department of Electrical and Computer Engineering, has received the Canadian Award for Telecommunications Research, sponsored by Queen's University and the Canadian Society of Information Theory.

Infectious disease researcher Deepali Kumar has received the Clinical Science Career Development Award from the American Society of Transportation.

Carole Estabrooks, professor in the Faculty of Nursing, received the Distinguished Academic Award from the Confederation of Alberta Faculty Associations.

Karim Jamal, U of A School of Business accounting chair, has won the 2010 Haim Falk Award from the Canadian Academic Accounting Association. Jamal is the third Alberta Business School professor to receive the award.

Public health science researcher Walter Kipp has been elected as a Fellow of the Canadian Academy of Health Sciences.

Octavian Catuneanu, professor in the Department of Earth and Atmospheric Sciences, has received the WW Hutchison Medal from the Geological Association of Canada.

Brian Jones, professor in the Department of Earth and Atmospheric Sciences, has received the J Willis Ambrose Medal from the Geological Association of Canada.

Brygeda Renke has been named executive director of the Association of Academic Staff University of Alberta, effective July 1. Previously, Brygeda served with AASUA as senior membership services officer.

AASUA Executive and Council Elections for 2010-11

President: Donald Heth, psychology
Vice-President: Ian MacLaren, history and classics
Treasurer: Loren Kline, dentistry/physiology
Past President: Walter Dixon, ALES
APO: George Thomlison, facilities management
FSO: Richard Uwiera, ALES
Librarian: Fred Ziegler, libraries
TRAS: Michele Hales, chemical and materials engineering

Academic Faculty reps

Jennifer Jay, Chair, history and classics
Jeremy Richards, Earth and atmospheric sciences
Thian Gan, civil and environmental engineering
Standing Committee Chairs

Salary: Larry Clark, drama
Members' advisory: Heidi Julien, library and information studies
Economic benefits: Tom Scott, School of Business
Equity: Malinda Smith, political science
Research and scholarly activity: Simaan AbouRizK, civil and environmental engineering
Teaching & Learning: Steve Harvey, physiology
Finance: Loren Kline, dentistry/physiology
Personnel: Ricardo Acuña, Parkland Institute

talks & events

Talks & Events listings do not accept submissions via fax, mail, e-mail or phone. Please enter events you'd like to appear in folio and on ExpressNews at: www.uofaweb.ualberta.ca/events/submit.cfm. A more comprehensive list of events is available online at www.events.ualberta.ca. Deadline: noon one week prior to publication. Entries will be edited for style and length.

Until Aug. 20

The Other Side of Gold Mountain: Glimpse of Chinese Pioneer Life on the Prairies from the Wallace B. Chung and Madeline H. Chung Collection. This exhibition of documents, photographs and artifacts provides significant insight into Chinese pioneer life on the Canadian Prairies. The Noon-4:30 p.m. B7 Rutherford South Rutherford Library, North and South (Humanities and Social Sciences).

Until July 31

Magadan—The People and the Place. A photographic celebration of the Canadian Circumpolar Institute's 50th Anniversary. Pavel Zhdanov and Andrey Osipov, two well-known Magadan region photographers, photograph the lives of gold miners and fishermen, of the remnants—both human and material—of the Magadan Gulag history, of post-Soviet ghost towns and happier occasions of weddings and community celebrations. Rutherford Library.

July 18–21

14th Biennial International Amine Oxidase Workshop. An international meeting of enzyme kineticists, structural biologists and physiologists to discuss current research on structure and function of mammalian amine oxidase enzymes, and roles of these enzymes in psychiatric and cardiovascular diseases, diabetes and cancer. To register go to www.pmc.ualberta.ca/ao2010/. 5:30–10:30 p.m. 1-040 Li Ka Shing Centre for Health Research Innovation.

July 19–Aug. 9

Big Basket Bonanza Contest. Enter at room 209 HUB Mall Administration Office. The contest is open to all full time U of A staff and students. 9 a.m. –3 p.m. 209 HUB Mall Administration Office HUB International.

July 20–24

Marine Mammal Workshop. This program is designed for adults with an interest in marine mammals, though no prior experience in this field is necessary. The workshop takes place at the Bamfield Marine Station and will focus on marine mammal research techniques, both through classroom activities and boat excursions with real marine mammal scientists. www.bms.bc.ca/pubed/adult/marmamwks.html

July 20

3M National Teaching Fellowship Workshop. The Academic Awards and Ceremonies Office invites you to a workshop designed to allow 3M candidates and nominators to work through all aspects of preparing nominations for this prize. The community of 3M National Teaching Fellows embodies the highest ideals of teaching excellence and scholarship with a commitment to enhance the educational experience of every learner. 9 a.m.–noon, TELUS Room 134 Aberhart Centre. www.mcmaster.ca/3Mteachingfellowships/

July 21

NASA Breakfast. This year's breakfast will run from 6:30–11:30 a.m. The location is the Quad and will take place rain or shine. The cost is \$2 or free to NASA members who show their NASA card (bringing your NASA card with you takes you directly to the food line). We are looking for volunteers to help with this event. A number of jobs/shifts are available. If you are able to help out, please contact Jamie at 780-439-3181 or email reception@nasa.ualberta.ca.

July 28

4th Annual WISEST Fun Golf Tournament. This fundraising golf tournament enjoys participation from many local industry, government and academic communities. Try your hand at some fun science and engineering activities beyond the golfing fun. Early bird fee is \$150 per golfer. After June 28 the cost is \$175 per golfer. **Registration deadline is July 19.** Registration fee includes green fees, power cart, continental breakfast, lunch and prizes. www.wisest.ualberta.ca

Aug. 13

Campus Sustainability Tour. Take a tour of North Campus to find out where and how the U of A is creating a sustainable campus. From students to faculty and staff to the wider community, everyone's welcome to join the free 1.5 hour walking tour. Please RSVP to secure your spot. Watch a short video about the Campus Sustainability Tours on our YouTube at www.youtube.com/watch?v=Jhs-oYnPs4Q 10:30 a.m.–noon. 559 General Services Building.

classified ads

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THE GRANDE PROMENADE (VICTORIA COURT). International style architecture. Enter your turnkey furnished condo today. You will enjoy entertaining in your spacious living room and dining room while enjoying spectacular river views. All the linens, towels, cutlery, dish and cookware is ready for your use. \$1,900/month. Yearly lease. Call Janet Fraser at 780-441-6441.

ABSOLUTELY STUNNING VIEWS, DOWNTOWN'S FINEST. The Gainsborough. Totally renovated, hardwood floors throughout, 2 large bdrms, lots of storage, living room dining room and den. 2 new bathrooms, new Brazilian cherry kitchen and pantry, black granite countertops, master bath with multi jet massaging shower. \$2,200/month. For details call Janet Fraser at 780-441-6441 or email jennfra@interbaun.com

WINDSOR PARK, MAIN FLOOR HOUSE FOR RENT. Attention sabbatical, PhD students. 10 month rental in beautiful Windsor Park. Turnkey furnished 3 bdrm main floor of house. Master bedroom features hot tub, and en suite. Formal dining and living room. Kitchen and relaxing back yard among the beauty of university area. Parking off street. \$2,600/month. Call Michael Jenner at 780-441-6441. Gordon W.R. King & Assoc. Real Estate Corp.

EXCITING FULLY RENOVATED STRATHEARN HOME. Fully renovated semi bungalow like new. \$3,000/month. Enjoy all new electrical, plumbing, insulation and windows. High efficiency furnace/hot water. Oversize insulated heated garage. 3 bdrm, 2 bath, fully finished basement. Beautiful new kitchen and hardwood floors throughout. Patios both front and back. A dream home with fantastic city views. Call Michael Jenner at 780-441-6441. Gordon W.R. King & Assoc. Real Estate Corp.

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PARKVIEW. 3 bdrm, 2 full baths, fully renovated bungalow. 12 mins to U of A, available September 2010. Non-smokers, no pets, responsible renters. \$1,399/month 780 436-5606. lamjamgra@shaw.ca

MAGRATH EXECUTIVE DUPLEX CONDOMINIUM. Well-located near Rabbit Hill Road and 23 Avenue. One 5 minute bus ride to Century Park LRT. New 2 bdrm, 2 ½ bath, open plan kitchen and living area with huge windows and a gas fireplace. Granite island, fenced yard with raised deck, single garage with remote opener, all appliances including washer and dryer. Easy access to shopping, restaurants, and walking trails. Convenient to the Henday and Terwilliger Drive. \$1,710/month, reductions available for longer tenancy. Available Aug. 1. 780-433-6387.

LOOKING FOR LUXURY + PEACE AND QUIET. We have a very unique modern, upscale rental opportunity at Shepherd's Gardens in Millwood's (close to the Grey Nuns Hospital). Custom designed 2,100 sq foot penthouse with modern decor. Hardwood floors, custom cabinetry, granite counters, floor to ceiling windows, two underground parking stalls, and storage cage(s). Two balconies – one off the master bedroom and a second 550 sq. ft. rooftop garden with incredible views of the City. \$2,900/month inclusive. For a personal tour call John at 780-463-9810 or 780-719-6569. www.shepherdscare.org/shepherds-gardens.html

3 BEDROOM BUNGALOW. Main floor. 6 blocks from Southgate LRT. Near U of A South Campus, walking trails and GO Centre. Available Sept 1st. No smoking. \$1,250/month plus shared utilities. 780-438-0973. barbwstone@shaw.ca

TWO BEDROOM, TWO BATH CONDO. 10149 Saskatchewan Drive, 18th floor. 900 sq. ft. New appliances. Parking. \$1,200/month. dobert@ualberta.ca

RIVERBEND. Unfurnished, 4 bdrm, 2 storey with walk-out basement. Available Aug. 1. \$2,500/month. Sandy 780-430-6876 (evenings).

TWO BEDROOM. 2 bathroom, hi-rise condominium adjacent to U of A. Claridge House 11027 – 87 Ave. 1,418 sq. ft., 7 appliances, in-suite laundry, A/C, swimming pool, underground heated parking. \$1,650/month includes utilities. Available August 1st, 2010. Phone 780-430-6797 or email bubel@telusplanet.net

VARSONA TOWERS, 11007 - 83 AVENUE. 2 bdrm, 1,130 sq. ft. apartment. Close to U of A. Available July 1. \$1,300/month, includes all utilities, washer, dryer, dishwasher, parking, pool. NS, NP. Ph 250-656-5445, Cell 250-812-1823, e-mail kowalyks@shaw.ca. Long-term preferred.

GLENORA. 900 sq. ft. bungalow. Immaculate, 2 bdrm up, 1 bdrm down, finished basement, all appliances, single detached garage. Close to downtown, U of A. Available Aug. 1. \$1,500. Phone 780-893-4514.

PLEASANTVIEW. 1 bdrm, 1 bath, upgraded apartment suite. 2 minutes from U of A. \$899/month. Phone Jennifer at 780-915-3817.

THREE BEDROOM PLUS DEN TOWNHOUSE. 1.5 baths, partially finished basement, 6 appliances. Walking distance to Southgate LRT, shopping, schools. 5 km from U of A. Available Sept. 1. \$1,590/month. Email: rent5ave@shaw.ca

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PROPERTY WANTED. By faculty member in Belgravia, Mckernan, or Windsor Park. Email bowman@math.ualberta.ca

U OF A FACULTY. Seeks 2/3 bdrm house for fall semester. Email raft@ualberta.ca

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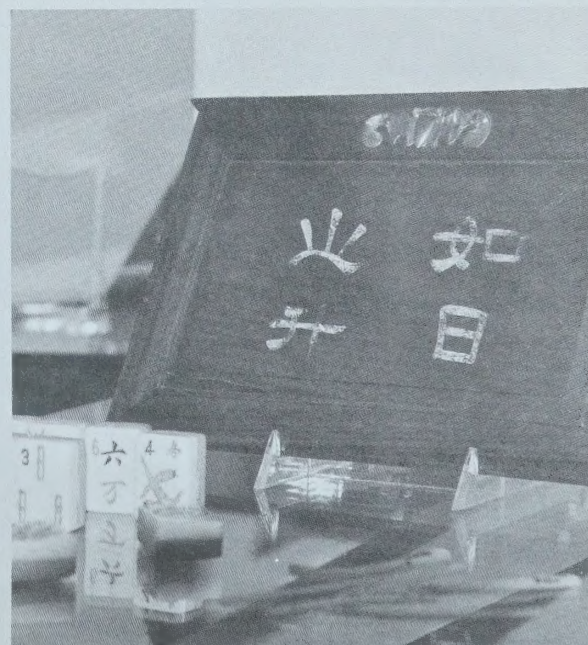
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The Other Side of Gold Mountain



This exhibit, which tells the story of Chinese pioneer life on the prairies through the eyes of Wallace Chug, is on display at the Bruce Peel Special Collections in the Rutherford Library until the end of August.



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